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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,776	09/15/2003	Steven Riedl	600179-002	1506

61834 7590 12/23/2010

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EXAMINER

CHORNESKY, ADAM B

ART UNIT	PAPER NUMBER
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3688

NOTIFICATION DATE	DELIVERY MODE
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12/23/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/662,776	Applicant(s) RIEDL ET AL.	
	Examiner ADAM CHORNESKY	Art Unit 3688	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-20, 23-41, 43-50, 52 and 53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-20, 23-41, 43-50, 52 and 53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a Non-Final Office action in response to the Applicant arguments filed on October 07, 2010 and amended claims filed April 20, 2010. No amendment was made to the claims after April 20, 2010. Claims 13, 21, 22, 42 and 51 were cancelled; claims 1, 34, 43 and 44 were amended; and Claims 54-109 were previously withdrawn. Thus the currently pending claims considered below are Claims 1-12, 14-20, 23-41, 43-50, 52 and 53.

2. Examiner's Note:

Claims 1, 6, 34, 35, 36, 50 and 61 recite "operative to select," "operative to generate," "operative to interpret," "operative to receive," "operative to perform an action ...," "operative to collection information ...," "operative to determine ...," "operative to collect ...," "operative to decode ...," "operative to forward ...," etc. Numerous claims recite "wherein ..." The Examiner considers these recitations to be a declaration of "intended use", which under MPEP 2111.04 [R-3] do not require steps to be performed, or by claim language does not limit a claim to a particular structure and may raise a question as to the limiting effect of the language in a claim. Other examples of nonlimiting or "intended use" language include "adapted to", "adapted for" and "whereby" clauses.

The determination of whether each of these clauses is a limitation in a claim depends on the specific facts of the case. In *Hoffer v. Microsoft Corp.*, 405 F.3d 1326, 1329, 74 USPQ2d 1481, 1483 (Fed. Cir. 2005), the court held that when a "whereby" clause states a condition that is material to patentability, it cannot be ignored in order to change the substance of the invention." *Id.* However, the court noted (quoting *Minton v. Nat'l Ass'n of Securities Dealers*,

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Inc., 336 F.3d 1373, 1381, 67 USPQ2d 1614, 1620 (Fed. Cir. 2003)) that a “whereby clause in a method claim is not given weight when it simply expresses the intended result of a process step positively recited.”

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 24-32 and 41 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

With respect to method claims, based on Supreme Court precedent, a method/process claim must (1) be tied to a particular machine or apparatus (see at least *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876)) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing (see at least *Gottschalk v. Benson*, 409 U.S. 63, 71 (1972)). A method/process claim that fails to meet one of the above requirements is not in compliance with the statutory requirements of 35 U.S.C. 101 for patent eligible subject matter. . Here the above claims fails to meet the above requirements because the steps are neither tied to a particular machine or apparatus nor physically transform underlying subject matter (such as an article or materials) to a different state or thing. See also, United State Court of Appeals for the Federal Circuit, 2007-1130, (Serial No. 08/833,892) IN RE BERNARD L. BILSKI and RAND A. WARSAW. There are two corollaries to the machine-or-transformation test. First, a mere field-of-use limitation is generally insufficient to render an

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otherwise ineligible method claim patent-eligible. This means the machine or transformation must impose meaningful limits on the method claim's scope to pass the test. Second, insignificant extra-solution activity will not transform an unpatentable principle into a patentable process.

With respect to claim 24, note that the preamble recites "A method for delivering local advertising to a client in a video distribution system ..." and then recites the steps of "performing an action that invokes a request for a program ...," "collecting information regarding the request...," "generating a playlist...," "determining whether the geographically zoned local advertisement has expired...," and "delivering the local advertising and program ...," are not positively recited as being tied to any particular machine.

Dependent claims 25-32 do not correct the deficiencies in their parent claims noted above and are, thus, likewise rejected as being directed to non-statutory subject matter.

Dependent claim 41 recites "...wherein the indicators are selected from a set consisting of SCTE 35 cue packets, DTMF cues, **contact closures triggered by an analog signal**, network messages from an insertion system and network messages from a stat-mux/splicer." The Examiner reminds the applicant that signals are not statutorily patentable under U.S.C. §101. See MPEP §2106 B, specifically, In re Nuijten, Docket no. 2006-1371 (Fed. Cir. Sept. 20, 2007)(slip. op. at 18)("A transitory, propagating signal like Nuijten's is not a process, machine, manufacture, or composition of matter.' ... Thus, such a signal cannot be patentable subject matter.").

5. The Supreme Court has deemed that the Bilski machine or transformation test for method claims 24-32 supra should not be the only consideration regarding patentability of claims under 35 U.S.C. §101. In view of this, consideration is further made regarding whether the claims are drawn to an abstract idea in ¶¶07-05-011 and 07-05-012 as below.

¶07-05-011: Based upon consideration of all of the relevant factors with respect to the claim as a whole, independent claim(s) 24 are held to claim an abstract idea, and is/are therefore rejected as ineligible subject matter under 35 U.S.C. 101. The rationale for this finding is explained below:

The preamble of independent claim 24 recites “A method for delivering local advertising to a client in a video distribution system ...” and then recites the steps of “performing an action that invokes a request for a program,” “collecting information regarding the request...,” “generating a playlist...,” “determining whether the geographically zoned local advertisement has expired...,” and “delivering the local advertising and program ...,” are not positively recited as being tied to any particular machine. There is no machine or device performing the steps, and therefore the steps describe an abstract idea, and is therefore ineligible subject matter under 35 U.S.C. 101. Likewise, the claim is not directed to an application of a law of nature. Known uses of the concept of delivering local advertising to a client in a video distribution system are covered, and can be performed through any existing machinery.

Therefore, the steps of method claim 24 are performed without the intervention of a machine and therefore constitute abstract or human steps, which are not statutory under 35 U.S.C. §101. See MPEP 2016 section 2106 IV A - Consider the Breadth of 35 U.S.C. 101 Under Controlling Law which cites *Alappat*, 33 F.3d at 1542, 31 USPQ2d at 1556 which teaches that

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35 U.S.C. 101 defines four categories of inventions that Congress deemed to be the appropriate subject matter of a patent: processes, machines, manufactures and compositions of matter ... [and that] ... The subject matter courts have found to be outside of, or exceptions to, the four statutory categories of invention is limited to **abstract ideas**, laws of nature and natural phenomena. While this is easily stated, determining whether an applicant is seeking to patent an **abstract idea**, a law of nature or a natural phenomenon has proven to be challenging. These three exclusions recognize that subject matter that is not a **practical application or use** of an **idea** ... Le Roy v. Tatham, 55 U.S. 156, 175 (1852) teaches that “A principle, in the **abstract**, is a fundamental truth; an original cause; a motive; **these cannot be patented**, as no one can claim in either of them an exclusive right.”) ...

¶07-05-012: Dependent claim(s) 25-31 when analyzed as a whole are held to be patent ineligible under 35 U.S.C. 101 because the additional recited limitation(s) fail(s) to establish that the claim(s) is/are not directed to an abstract idea, as detailed below: collecting information comprises collecting client information; collecting information comprises collecting program information; wherein the client performs an action that invokes the request; recording one copy of a given program for each local advertising zone that the video distribution system services; segmenting local advertising out of each program copy and marking each segmented program copy with a zone identifier; wherein collecting information comprises collecting a zone identifier for the zone from which the request originates; and wherein the segmenting is performed by identifying indicators for local advertising.

However, dependent claim 32 recites “... wherein identifying is conducted according to one or more of a set consisting of SCTE 35 cue packets, DTMF cues, **contact closures triggered**

by an analog signal, network messages from an insertion system and network messages from a stat-mux/splicer,” which does tie independent claim 24 to tangible devices. However, the triggering of contact closures by an analog signal is not statutory. The Examiner reminds the applicant that signals are not statutorily patentable under U.S.C. §101. See MPEP §2106 B, specifically, In re Nuitjen, Docket no. 2006-1371 (Fed. Cir. Sept. 20, 2007)(slip. op. at 18)(“A transitory, propagating signal like Nuitjen’s is not a process, machine, manufacture, or composition of matter.’ ... Thus, such a signal cannot be patentable subject matter.”).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-12, 14, 17-20, 23 and 34-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlucci et al. (US PgPub 20040103429 A1) in view of Bjorgan et al. (US PgPub 20030066078 A1), Lumley et al. (US Pat 6588013 B1) and Liga et al. (US PgPub 20030154128 A1).

Claims 1 and 34: Carlucci discloses a system for creating a program for delivery to a client in a video time shifting architecture and a video distribution system, the system comprising:

a client device operative to perform an action that invokes a request for a program (paragraph [0031] and figure 2 via a broadband communications system 100 for providing interactive programming and services to users, which implements a “play list” concept ... [including] headend 105, hub 120, hybrid fiber coax (HFC) cable network 140 and different service area nodes including node 150, which in this instance is **connected to set-top terminals 158-1 through 158-L in a neighborhood**, where L represents an integer);

an advertisement selection system (ADS) operative to select one or more advertisements according to address data associated with the client and transmit one or more identifiers that uniquely identify the selected advertisements (paragraph [0032] and figure 2 via **headend 105 receives programs and services from various providers and sources**, e.g., analog and digital satellite sources, application servers, media servers, the Internet ... Analog and digital satellite sources typically provide the traditional forms of television broadcast programs and information services ... Media servers provide time-critical media assets; and paragraph [0036] and figure 2 via **A/S processor 109** [acquisition/staging processor] **may receive "assets"** ... from content providers ... “asset” is a container for any object or set of objects that may be desired to implement a program, service, including video, audio, images, application executables, scripts, configuration files, text, fonts, and HTML pages. In addition to the raw content, **metadata is also a part of an asset object that describes characteristics of the asset**. For example, **asset metadata may describe attributes that are inherent in the content of the asset, such as the rating, format, duration, size, or encoding method**);

an advertisement management system (AMS) operative to generate a playlist that identifies content, including a user requested program stored in the video time shifting

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architecture and the one or more selected advertisements, the AMS being further operative to determine whether the one or more selected advertisements have expired and to request one or more replacement advertisements for the one or more selected advertisements that have expired; and an advertisement management system (AMS) operative to collection information regarding the request and generate a playlist utilizing one or more geographically zoned local advertisements and the requested program, the AMS being further operative to determine whether the one or more geographically zoned advertisements have expired and to request one or more replacement advertisements for the one or more geographically zoned advertisements (paragraph [0036] and figure 2 via [acquisition/staging] processor 109 may also create "assets" in real time while processing received program materials which are not pre-staged by the content providers ... an "asset" is a container for any object or set of objects that may be desired to implement a program, service, including video, audio, images, application executables, scripts, configuration files, text, fonts, and HTML pages ... An asset concerning a commercial may include a metadata file and commercial branch table associated with the commercial);

However, Carlucci only discloses in part determining whether the one or more selected advertisements have expired and requesting one or more replacement advertisements for the one or more selected advertisements that have expired (paragraphs [0094]-[0096] and figure 2 via after receiving ... [a] play list message, terminal 158-1 relies on a clock (not shown) to keep track of time elapsed from the receipt of the message, retrieves from Ad storage 1101 the content of the alternate commercial identified by its code in the message, and inserts the alternate commercial content in the received program stream as soon as the predetermined period from the receipt of the message expires ... the alternate commercials in storage 1101 may be updated by

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headend 105, which may from time to time transmit the updated commercial content via an out-of-band channel, e.g., FDC, to terminal 158-1, without interrupting any program stream received by terminal 158-1 through an in-band channel ... [thereby] inserting commercials into a program stream which are targeted to the user at a set-top terminal ... Ad storage 1101 stores commercial content targeted to the user at terminal 158-1. The stored commercial content may be based on ... the type of program channel to which the user tunes, the type of programming content being viewed, **the time of day that the programming content is viewed**, etc.)

Bjorgan teaches in paragraph [0017] the use of a cue to selectively replace a commercial within a subset of the video frames with a substitute commercial during playback. This may suitably be to replace an "expired" commercial or, alternatively, to present a "targeted" commercial, such targeting possibly based, at least in part, upon the economic characteristics of a particular geographic location, possibly identified by zip code ... [or] other measurable characteristics.

Therefore, from the teaching of Bjorgan it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the technique for delivering entertainment programming content including commercial content therein over a communications network of Carlucci to include the use of a cue to selectively replace a commercial, replace an "expired" commercial, or present a "targeted" commercial of Bjorgan in order to more accurately target secondary content toward the current needs of the specific audience viewing their primary content programming at any given time (paragraph [0010]);

However, Carlucci only presents one concept of the utilization of a playlist in a television distribution system.

Lumley teaches in col. 6, lines 32-41 and figure 1 that screen generator 42 may select promotional material for distribution according to a promotional material selection algorithm such as a promotional philosophy, playlist script, or other suitable promotional material selection algorithm. A promotional philosophy, for example, is a promotional material selection algorithm used by television distribution facility 16 to attempt to maximize returns from promotional material by positioning certain types of promotional material at particular times of the day thereby reaching certain types of television viewers.

Therefore, from the teaching of Lumley it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the technique for delivering entertainment programming content including commercial content therein over a communications network of Carlucci to include the playlist script to maximize returns from promotional material of Lumley in order to provide a promotional material distribution system in which promotional material selection algorithms are automatically updated based on a promotional event log without involving extensive manual analysis by operators (col. 2, lines 47-51).

However, Carlucci only discloses in part as supra where the expired advertisements are geographically zoned.

Liga teaches in Abstract a method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer. Liga then teaches in paragraph [0009] a method and system to freshen or replace stale advertising. An advertisement may be encoded or embedded with a hidden time or date stamp indicating when an advertisement expires. As the PVR [personal video recorder] plays back a recorded video signal, it may check the embedded

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information before an advertisement is actually shown. Should the embedded stamp indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Liga further teaches in paragraph [0024] the freshening or replacement of stale advertising. Each advertisement may again be encoded or embedded with hidden information. In this embodiment, the hidden information is typically a time or date stamp indicating when an advertisement expires. As the PVR plays back a recorded video signal, it may check the embedded information as each advertisement is queued for playback. Should the embedded information indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Updated advertisements may either be requested from and transmitted by a server located at a cable headend or other transmission source, or may be stored locally on the PVR itself.

Therefore, from the teaching of Liga it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the technique for delivering entertainment programming content including commercial content therein over a communications network of Carlucci to include the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga in order to provide an improved method and system for displaying advertisements in conjunction with a personal video recorder (Liga paragraph [0005]); and

Carlucci then discloses a video server operative to interpret the playlist and deliver the content to the user; and a video server operative to receive the playlist and deliver the local advertisement and program to the client for decoding and playback (paragraphs [0030]-[0032] and figures 1 and 2 via a play list, based on which programming content is shown to a user depending on the actual play speed chosen by the user [normal play time, fast forward, rewind,

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etc. and related speeds, and presenting commercials of corresponding duration ("trick files")] ... broadband communications system 100 for providing interactive programming and services to users, which implements the inventive "play list" concept ... system 100 provides a user with PVR-like functions to manipulate programming content being reviewed, and with an alternate commercial to an original commercial when the user rewinds or fast-forwards, or otherwise manipulates the original commercial ... Headend 105 receives programs and services from various providers and sources, e.g., analog and digital satellite sources, application servers, media servers, the Internet, etc. ... Application servers typically provide executable code and data for application specific services ... Media servers provide time-critical media assets such as MPEG-2 encoded video and audio, MPEG-2 encoded still images, bit-mapped graphic images, PCM digital audio, three dimensional graphic objects, application programs, application data files, etc. [the "Headend receiving programs and services from application servers" considered by the Examiner that the Headend is equipped to interface and receive from application servers, meaning the headend is compatibly networked to the application server and therefore is itself network compatible (also a server)]); and paragraph [0104] via delimiting messages are used to identify demarcations of different programs and program segments within each program ... such demarcations may be specified by schedule data from a storage device or server in communication with A/S processor 109 [Acquisition/Staging processor]).

Claim 2: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of claim 1, and Carlucci also discloses in part wherein the AMS generates a playlist that identifies a given one of the one or more selected advertisements as a bumper advertisements for delivery by the video

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server prior to the user requested program (paragraph [0038] and figures 2 and 3 via the TV streams received by processor 109 are pre-processed, e.g., by the providers, to include delimiting messages, on which processor 109 relies to identify the demarcations (or edges) of different programs and program segments within each program ... a first delimiting message is inserted at the beginning of segment 231, indicating the beginning of TV program 200; second delimiting messages are inserted at the beginnings of segments 221 and 227, indicating the beginnings of the respective commercial segments; third delimiting messages are inserted at the ends of segments 221 and 227, indicating the ends of the respective commercial breaks [the Examiner notes that "bumper advertisements" as defined by the Applicant on page 2, lines 15-16 are "advertisements inserted before or after a client requested program", thus the delimiting messages at the beginning and end of commercial segments of Carlucci define the insertion points for "bumper advertisements" of the current invention])

Claim 3: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of claim 1. and Carlucci further discloses wherein the AMS generates a playlist that identifies a given one of the one or more selected advertisements as a pause teaser advertisement for delivery by the video server upon receipt of a pause control command (paragraph [0013] via use of one or more alternate commercials for substituting the original commercial in programming content when a user performs a PVR-like function (e.g., fast-forward, rewind and pause) on a presentation of the programming content; and paragraph [0097] and figure 2 via ones of the alternate commercials in Ad storage 1101 may also be selected to play on the TV screen while terminal 158-1 is in a pause mode triggered by the user's issuing a pause command to pause the programming content

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being viewed [the “alternate commercial” is considered by the Examiner to be the “pause teaser advertisement” of the current invention when activated by the subscriber or user using the “pause” control]).

Claim 4: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of claim 1, and Carlucci further discloses wherein the AMS generates a playlist that identifies a given one of the one or more selected advertisements as a pause advertisement for delivery by the video server upon the receipt of a pause advertisement control command (paragraph [0030] and figures 1 and 2 via a play list, based on which programming content is shown to a user depending on the actual play speed chosen by the user [normal play time, fast forward, rewind, etc. and related speeds, and presenting commercials of corresponding duration (“trick files”), the Examiner considering the commercials presented when the user issues the pause command to be the “pause advertisement” of the current invention]).

Claim 5: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of claim 1, and Carlucci further discloses wherein the playlist is indexed according to Normal Play Time (NPT) (paragraph [0030] and figures 1 and 2 as supra [normal play speed, fast forward, rewind, etc. and related speeds, and presenting commercials of corresponding duration (“trick files”), the Examiner considering that commercials are presented when the user issues the normal play speed] ... the tree structure of FIG. 1 represents a play list, based on which programming content is shown to a user depending on the actual play speed chosen by the user; and paragraph [0043] and figures 2 and 3 via processor 109 creates in real time trick files associated with show

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segment 231 (233, 235) as part of its asset which are used to perform PVR-like functions (e.g., fast-forwarding and rewinding) on show segment 231 (233, 235), in accordance with the ... "play list" concept).

Claim 6: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of claim 1, and Carlucci further discloses wherein the video server is operative to receive a pause control command from a client, mark the location in the playlist that corresponds to a point in time when the video server receives the pause command and advance to an advertisement in the playlist (paragraph [0030] and figures 1 and 2 as supra ... a play list, based on which programming content is shown to a user depending on the actual play speed chosen by the user [normal play speed, fast forward, rewind, etc. and related speeds, and presenting commercials of corresponding duration ("trick files"), the Examiner considering that commercials are presented in the order they appear in the play list when the user issues the pause command]).

Claim 7: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of claim 6, and Carlucci further discloses wherein the client displays a pause video still overlay upon transmission of a pause control command (paragraph [0042] and figure 4 via manager 124 populates in column 321a of commercial branch table 300 codes A1, A2, A3 and A4 identifying alternate commercials to commercial 221a which correspond to [various fast-forward speeds] ... and in column 321b codes B1, B2, B3 and B4 identifying alternate commercials to commercial 221a which correspond to [various rewind speeds] ... the actual alternate commercial content identified by codes A1, A2, A3, A4, B1, B2, B3 and B4 are stored in advertisement (Ad) storage

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126 ... Storage 126 has a memory capacity on the order of, say, terabytes to adequately store the video, slide shows **and/or still images that make up the array of alternate commercials**; and paragraph [0097] via Ad storage 1101 may also be selected to play on the TV screen while terminal 158-1 is in a pause mode triggered by the user's issuing a pause command to pause the programming content being viewed ... alternate commercial may comprise a still image or series of images promoting the goods or service targeted to the user, which is displayed in lieu of the paused (or frozen) programming image [the term "still image ... displayed in lieu of ... paused ... image" considered by the Examiner to be a "still overlay"]).

Claim 8: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of claim 7, and Carlucci further discloses wherein the pause video still overlay comprises operating instructions (paragraph [0032] via Headend 105 receives programs and services from various providers and sources ... Application servers typically provide executable code and data for application specific services ... such as ... weather and interactive program guide data; and paragraphs [0100]-[0101] and figure 3 via the PVR-like [Personal Video Recorder] functions ... are conducive to an enhanced program enjoyment, especially where an interactive commercial ... is encountered in a program ... if a user chooses to select an interactive option in such a commercial to obtain additional information ... after the user finishes viewing the prolonged interactive commercial which exceeds its normal time allotment, the user often is returned to the midst of the in-progress show segment, thereby undesirably missing a beginning portion of the show segment ... Thus, to enhance the user's program enjoyment in case of a prolonged

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interactive commercial ... the beginning of the show segment following the commercial is "paused" to wait for the user's return).

Claim 9: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of claim 6, and Carlucci further discloses wherein the video server advances to a pause teaser advertisement in the playlist and begins delivery of the pause teaser advertisement (paragraph [0013] via use of one or more alternate commercials for substituting the original commercial in programming content when a user performs a PVR-like function (e.g., fast-forward, rewind and pause) on a presentation of the programming content; and paragraph [0097] and figure 2 via ones of the alternate commercials in Ad storage 1101 may also be selected to play on the TV screen while terminal 158-1 is in a pause mode triggered by the user's issuing a pause command to pause the programming content being viewed [the "alternate commercial" is considered by the Examiner to be the "pause teaser advertisement" of the current invention when activated by the subscriber or user using the "pause" control]).

Claim 10: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of claim 9, and Carlucci further discloses the invention further comprising delivering the pause teaser advertisement to the client for display (paragraph [0013] and paragraph [0097] and figure 2 as in claim 9 supra).

Claims 11 and 12: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of claim 6, and Carlucci further discloses wherein the video server returns to the location in the playlist

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that corresponds to a point in time when the video server receives the pause command and commences delivery of the user requested program; and wherein the video server advances to and begins delivery of a pause advertisement in response to receipt of a pause advertisement control command (paragraphs [0031]-[0032] and figure 2 via a broadband communications system 100 for providing interactive programming and services to users, which implements the inventive "play list" concept ... [providing] a user with PVR-like functions to manipulate programming content being reviewed, and with an alternate commercial to an original commercial when the user rewinds or fast-forwards, or otherwise manipulates the original commercial ... Headend 105 receives programs and services from various providers and sources, e.g., analog and digital satellite sources, application servers, media servers, the Internet, etc. [the "Headend receiving programs and services from application servers" considered by the Examiner that the Headend is equipped to interface and receive from application servers, meaning the headend is compatibly networked to the application server and therefore is itself network compatible (also a server)]; and paragraph [0071] and figures 1 and 4 where the rewind termination command [considered by the Examiner as a possible pause command] is received during a display of an alternate commercial to, say, commercial 221a, processor 119 proceeds to finish playing the alternate commercial and in then meantime looks up from row 321 of table 300 the ending I-frame identifier ... of commercial 221a ... Processor 119 causes retrieval of the show program material (or another commercial, if any) at the normal forward speed from cache manager 111).

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Claim 14: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of claim 1, and Carlucci further discloses wherein the ADS selects the one or more selected advertisements on the basis of aggregate viewing information (paragraphs [0095]-[0096] via inserting commercials into a program stream which are targeted to the user at a set-top terminal ... Ad storage 1101 stores commercial content targeted to the user ... The stored commercial content may be based on (a) the user's personal information ... and/or (b) the user's program viewing behavior/habit, e.g., the type of program channel to which the user tunes, the type of programming content being viewed, the time of day that the programming content is viewed, etc. ... For example, the targeted commercial content may relate to the programming content being viewed by the user. Let's say the programming content being viewed is a sporting event, e.g., a NFL football game, the targeted commercial content selected from storage 1101 relates to sportswear, sneakers, exercise equipment, etc.).

Claim 17: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of claim 1, and Carlucci further discloses wherein the ADS transmits advertisements and advertisement metadata to the AMS for storage in a content storage device (paragraph [0036] and figure 2 via A/S processor 109 [acquisition/staging processor] may receive "assets" ... from content providers; and paragraph [0065] and figures 2 and 9 via after determining t, processor 119 at step 940 retrieves one or more alternate commercials from Ad storage 126 to occupy t. Processor 119 ... causes the retrieved alternate commercial content to be transmitted in the transport stream to terminal 158-1; and paragraph [0078] and figures 2 and 10 via After determining t', processor 119 at step 1040 retrieves one or more alternate commercials from Ad storage 126 to occupy t'.

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Processor 119 ... causes the alternate commercial content to be transmitted in the transport stream to terminal 158-1 [the Examiner considers the headend 105 to include both the ADS and AMS components to transmit advertisements and advertisement metadata]).

Claim 18: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of claim 17, and Carlucci further discloses wherein the AMS transmits an acknowledgement to the ADS upon receipt of the advertisement and advertisement metadata (paragraph [0101] and figures 2-4 via to enhance the user's program enjoyment in case of a prolonged interactive commercial, in accordance with another aspect of the invention, the beginning of the show segment following the commercial is "paused" to wait for the user's return ... digital cue message 241 provides to play list manager 124 in advance such information as commercial 221a being an interactive commercial. **In response, manager 124 stores in a buffer the identifier of the last I-frame of commercial segment 221** also from message 241. In the event that media processor 119 is informed of a user selection of an interactive option in commercial 221a, processor 119 causes the necessary additional commercial displays (e.g., stored in **Ad storage 126**) associated with commercial 221a to be provided to the user [the response of manager 124 by storing in a buffer the identifier of the last I-frame of commercial segment 221 is considered by the Examiner an acknowledgement and the identifier to be the advertisement metadata]).

Claim 19: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of claim 1, and Carlucci further discloses wherein the video server receives control commands from the user (paragraph [0029] via delivering programming content, including commercials therein, to users

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through a broadband communications network, e.g., a cable TV network ... a user at a set-top terminal may issue commands to perform PVR-like functions (e.g., fast-forward, rewind, and pause) on the TV show received from the cable TV network. In addition, the user may control variable speeds of fast-forwarding and rewinding the show; and paragraph [0032] and figure 2 via Headend 105 receives programs and services from various providers and sources, e.g., analog and digital satellite sources, application servers, media servers, the Internet, etc. ... Media servers provide time-critical media assets such as MPEG-2 encoded video and audio, MPEG-2 encoded still images, bit-mapped graphic images, PCM digital audio, three dimensional graphic objects, application programs, application data files, etc. [the feed from media servers in response to user set-top command considered by the Examiner to be receipt of user commands by the video server of the current invention]).

Claim 20: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of claim 19, and Carlucci further discloses wherein the video server requests a new playlist from the AMS upon the receipt of a new program initiation command from the user (paragraphs [0030]-[0032] and figures 1 and 2 via a play list, based on which programming content is shown to a user depending on the actual play speed chosen by the user [normal play time, fast forward, rewind, etc. and related speeds, and presenting commercials of corresponding duration ("trick files")] ... broadband communications system 100 for providing interactive programming and services to users, which implements the inventive "play list" concept ... system 100 provides a user with PVR-like functions to manipulate programming content being reviewed, and with an alternate commercial to an original commercial when the user rewinds or fast-forwards, or otherwise

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manipulates the original commercial ... Headend 105 receives programs and services from various providers and sources, e.g., analog and digital satellite sources, application servers, media servers, the Internet, etc. ... Application servers typically provide executable code and data for application specific services ... Media servers provide time-critical media assets such as MPEG-2 encoded video and audio, MPEG-2 encoded still images, bit-mapped graphic images, PCM digital audio, three dimensional graphic objects, application programs, application data files, etc. [the "Headend receiving programs and services from application servers" considered by the Examiner that the Headend is equipped to interface and receive from application servers, meaning the headend is compatibly networked to the application server and therefore is itself network compatible (also a server)]); and paragraph [0104] via delimiting messages are used to identify demarcations of different programs and program segments within each program ... such demarcations may be specified by schedule data from a storage device or server in communication with A/S processor 109 [Acquisition/Staging processor]).

Claim 23: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of claim 20, and Carlucci further discloses wherein the AMS transmits a request to the ADS to select one or more local advertisements included in the program as originally broadcast (paragraphs [0092]-[0094] and figures 2 and 13 via alternate commercial content is stored in Ad storage 126 in headend 105. However, in a second embodiment, the alternate commercial content is stored locally to set-top terminals, instead [the storage of alternate commercial content stored locally is considered by the Examiner to be "local advertisements" of the current invention] ... the program stream transmitted to terminal 158-1 after the user at the terminal issues a rewind or fast-forward

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command does not contain alternate commercial content itself. Rather, **it [the terminal] contains play list messages concerning alternate commercials, based on which terminal 158-1 locally inserts into the program stream the appropriate alternate commercials from Ad storage 1101** ... a play list message may be generated by media processor 119, and transmitted in the program stream in advance of an alternate commercial to be inserted by a predetermined period ... after receiving one such play list message, terminal 158-1 relies on a clock (not shown) to keep track of time elapsed from the receipt of the message, retrieves from Ad storage 1101 the content of the alternate commercial identified by its code in the message, and **inserts the alternate commercial content in the received program stream as soon as the predetermined period from the receipt of the message expires** [the Examiner considers the play list messages concerning alternate commercials are only inserted when the user fast forwards, etc. through advertisements; similarly, the Examiner considers that the system refrains from replacing an advertisement in the program until the advertisement expires; regarding local advertising,]).

However, the term "local advertisement" may also refer to advertisements directed toward a particular geographic area, zipcode, city, state, town, zone, etc. Carlucci does not describe such advertising.

Bjorgan teaches in paragraph [0017] the use of a cue to selectively replace a commercial within a subset of the video frames with a substitute commercial during playback. This may suitably be to replace an "expired" commercial or, alternatively, to present a "targeted" commercial, such targeting possibly based, at least in part, upon the economic characteristics of a particular geographic location, possibly identified by zip code, though other measurable characteristics concerning the viewing/listening audience, including demographics data (e.g.,

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age, sex, income, etc.), usage patterns, dynamic and/or static profiles, purchase history and the like.

Therefore, from the teaching of Bjorgan it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the technique for delivering entertainment programming content including commercial content therein over a communications network of Carlucci to include the presentation of “targeted” commercials based on a particular geographic location, zipcode, etc. of Bjorgan in order to more accurately target secondary content toward the current needs of the specific audience viewing their primary content programming at any given time (paragraph [0010]).

Claim 35: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of Claim 34, and Lumley further discloses wherein the AMS is operative to collect information regarding the requesting client (col. 6, lines 57-65 and Fig. 1 via television distribution facility 16 has promotional event recorder 44 for maintaining a promotional event log which is provided to main facility 12 over communications link 15).

Claim 36: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of Claim 34, and Lumley further discloses wherein the AMS is operative to collect information regarding the requested program (col. 3, lines 20-40 via a promotional event log is maintained by the television distribution facility which may include entries for the time of day a promotional event was distributed or displayed, attributes of how the promotional event was performed, which script version was active at the time, the first choice of promotional event, the title of the promotional

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event, the actual file (e.g., text, graphic, audio or video) that was utilized in the promotional event, actual duration of the promotional event in milliseconds and frames, expected duration, display attributes, actual computed overlay (e.g., channel 16 at 4:00 P.M.), and any special play effect) .

Claim 37: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of Claim 34, and Lumley further discloses wherein the video server records one copy of a given program for each local advertising zone that the video distribution system services (col. 8, line 64 through col. 9, line 14 and Fig. 4 via promotional event log analyzer 30 may make changes to a promotional material selection algorithm if the algorithm does not provide for optimal promotional material selection, such as having certain promotional events in certain time slots for different time zones, having particular promotional events sent to television distribution facilities of a certain service configuration).

Claim 38: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of Claim 37, and Lumley further discloses wherein the video server segments local advertising out of each program and marks the segmented local advertising with a zone identifier (col. 1, line 65 through col. 2, line 9 via global promotional videos are also generated by a main facility and stored on laserdiscs and are provided to cable system headends via a suitable mail carrier in addition to the real-time stream of videos; the global promotional videos are displayed until a "local segment" occurs; during the "local segment" the headends select promotional videos from the laserdiscs according to a promotional philosophy or playlist).

Claim 39: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of Claim 38, and Lumley further discloses wherein the video server collects a zone identifier for the zone in which the client resides (col. 3, lines 41-61 via a promotional event log analyzer at the main facility is programmed to automatically determine if promotional material is being selected optimally based on the promotional event log, by way of a desirable occurrences database having a set of rules that may, for example include: having a large number of promotions of a particular theme during a particular time slot, having certain promotional events in certain time slots for different time zones, having particular promotional events sent to television distribution facilities of a certain service configuration).

Claim 40: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of Claim 37, and Lumley discloses wherein the video server segments the local advertising by identifying indicators for the local advertising (col. 1, line 65 through col. 2, line 9 via global promotion videos are displayed until a “local segment” occurs; and col. 6, lines 8-20 and Fig. 2 via an illustrative promotional material display screen 80 may be divided into video promotion area 82, text promotion area 84, and program listings area 86 or any combination thereof).

Claim 41: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of Claim 40, and Liga discloses wherein the indicators are selected from a set consisting of SCTE 35 cue packets, DTMF cues, contact closures triggered by an analog signal, network messages from an insertion system and network messages from a stat-mux/splicer.

Liga teaches in paragraph [0023] lines 10-13 that embedded data may be transmitted as separate data packets in the data stream comprising the video signal, or in network signals such as Society of Cable Telecommunications Engineers (SCTE) standards, such as the DVS 253 standard for cueing advertisements. Liga et al. also teaches in paragraph [0082] lines 1-7 detecting advertisements either by receiving the embedded data, or receiving a signal indicating the cessation of the program and beginning of an advertisement, where this signal may be, for example, a dual-tone frequency modulated (DTMF) signal, a DVS 253 or 380 signal, or any form of embedded command data of an analog or digital nature. Liga et al. also teaches in figure 3 and in paragraph [0042] lines 9-11 that once modulated, the digital signals are combined with standard network channel broadcasts by the multiplexor 340.

Therefore, from the teaching of Liga it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the local advertising segmentation of Lumley and the method of delivering advertising through an interactive video distribution system of Hooks to include the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga in order to use targeted ads in conjunction with consumer profile information to reach interested consumers (Liga Abstract lines 3-4).

8. Claim 24-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering et al. (US PgPub 20020123928 A1) in view of Swix et al. (US Pat 6718551 B1).

Claim 24: Eldering discloses a method for delivering local advertising to a client in a video distribution system, the method comprising:

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performing an action that invokes a request for a program (paragraph [0090] via TV transactions are not limited to broadcast and cable television but may include pay per view (PPV), video on demand (VOD), near VOD (NVOD), or other video that may be delivered over a television access network);

collecting information regarding the request (paragraph [0090] via the viewing characteristics database 610 may receive data from a TV viewing characteristics database 612 and an Internet viewing characteristics database 614);

generating a playlist utilizing a correctly geographically zoned local advertisement and the requested program (paragraph [0024] via a system, method and apparatus for targeting advertisements (ads) to subscribers. **The ads are targeted to subscribers by correlating subscriber profiles with ad profiles** [this correlation of subscriber profiles with ad profiles considered by the Examiner to be the construction of the “playlist” of the current invention]; and paragraph [0029] via ad profiles and subscriber profiles are received by a Secure Correlation Server.TM. (SCS). The SCS correlates the ad profiles with one or more subscriber profiles or one or more group of subscribers. The correlation can be performed by applying an operator to the subscriber profiles in the form of ket vectors to determine if a particular ad is applicable to the subscriber; and paragraph [0084] via **numerous characteristics by which subscribers can be grouped**, including but not limited to **geographic**, demographic, psychological, psychographic, socio-cultural, viewing habits, purchase habits, Internet surfing habits, interests and hobbies; paragraph [0133] and figures 5 and 6 that the SPS 550 [Secure Profiling System] may gather data from the viewing characteristics database 610, the purchasing characteristics database 620, the transaction characteristics database 630, the statistical information database

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640, and the deterministic information database 650, and statistically multiplex it to generate a resulting profile that is used to match subscribers to ads ... the profiles are formed in advance and forwarded to the SCS 540 [Secure Correlation Server] where they are matched with ads.

According to another embodiment, the SPS 550 receives ad characteristics from advertisers via the SCS 540 and based on the available data generates associated profiles that it forwards to the SCS 540 for matching [the Examiner considers that “Secure Correlation Server (SCS 540) correlation of user profiles (databases) with ad profiles (also databases)” as the “playlist” of the current invention, wherein Examiner considers any playlist to be just another database, which is what Eldering is implementing here]; and

However, Eldering does not specifically refer to the term “playlist”.

Swix teaches in Abstract a method and system for providing targeted advertisements over a networked media delivery system ... tracking and storing viewer selections, analyzing the selections, and delivering targeted advertisements that appeal to the particular subscriber ... [delivering] the advertisements as either still frame bit maps or as video streams advertisement insertion in a **playlist** or a broadcast media program. Swix then teaches in col. 3, lines 3-23 that **targeted internet advertising systems** simply **record** user selections of internet advertisements, note words typed when searching web content, **or read user information such as geographic location**, domain type (e.g., commercial, education or government), and perhaps standard industry codes (SICs), which indicate such user characteristics as employer and type of employer.

Therefore, from the teaching of Swix it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the technique for delivering

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entertainment programming content including commercial content therein over a communications network of Eldering to include the targeted internet advertising systems that read user information such as geographic location of Swix in order to provide targeted advertisements over a networked media delivery system by tracking and storing viewing events, analyzing the events, and delivering targeted advertisements, analyzing the events, and delivering targeted advertisements that appeal to the particular subscriber (col. 3, lines 26-47)

determining whether the geographically zoned local advertisement has expired and replacing an expired geographically zoned local advertisement with a replacement advertisement (paragraph [0122] and figures 18-20 via based on the type of programs viewed, times watched, channel change patterns, volume levels or other subscriber activities the heuristic rules could define the probability of a subscriber eating fast food, the type of ads they are receptive to (i.e., emotional, funny, abrasive), or the probability of the subscriber paying for a particular service (i.e., car or house cleaning, oil change) as opposed to doing it themselves [the Examiner construes the term “times watched” to include time of day/night intervals as well as how frequently a particular program is watched in order to determine when to place a particular advertisement]; and paragraph [0184] via in addition to the ads it is likely that an ad queue defining some characteristics of when ads should displayed is also sent to the PVR and stored thereon; based on the ad queues the ads would be substituted during avails [the Examiner construes the recitation of “... an ad queue defining sum characteristics of when ads should be displayed ...” as a determination of when to place a particular ad]; paragraph [0086] and figure 5 via a secure correlation server creates presentation streams that have the same programming but include targeted advertisements in place of the default advertisement [the Examiner construes

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the action of the secure correlation server as the expiring of the default advertisement in favor of the selected targeted advertisement]); and

delivering the local advertising and program to a client for decoding and playback (paragraph [0161] via ads may be targeted to the subscribers within the subzone based on the subzone profile).

Claim 25: Eldering and Swix disclose all the elements of Claim 24, and Eldering further discloses wherein collecting information comprises collecting client information (abstract via monitoring subscriber viewing interactions, such as television viewing interactions, and generating viewing characteristics therefrom).

Claim 26: Eldering and Swix disclose all the elements of Claim 25, and Eldering further discloses wherein collecting information comprises collecting program information (paragraphs [0093] and [0094] and figure 7 via information related to the source material 720, such as ... program data 726 ...).

Claim 27: Eldering and Swix disclose all the elements of Claim 24, and Eldering further discloses wherein the client performs an action that invokes the request (paragraph [0090] and figures 5 and 6 via a TV viewing characteristics database 612 and an Internet viewing characteristics database 614 where each of these databases may receive transaction data from a TV transaction database 616 and an Internet transaction database 618 respectively).

Claim 28: Eldering and Swix disclose all the elements of Claim 24, and Eldering further discloses the invention comprising recording one copy of a given program for each local advertising zone that the video distribution system services (paragraph [0085] and figure 5 via an exemplary system for grouping TV subscribers into subgroups and delivering targeted ads consisting of content providers 510, national advertisers 520, local advertisers 530, a Secure Correlation Server.TM. (SCS) 540, a Secure Profiling System (SPS) 550, a network operator, an access network and subscribers 580; where the national advertiser 520 delivers national ads 522 to the content providers 510 and the content providers 510 generate and deliver program streams 515, and then delivered to the SCS 540; the SCS 540 also receives additional national ads 524 and local ads 526 from the national advertiser 520, and local ads 535 from the local advertisers 530. The SCS 540 also receives subscriber profiles 555 from the SPS 550).

Claim 29: Eldering and Swix disclose all the elements of Claim 28, and Eldering further discloses the invention comprising segmenting local advertising out of each program copy and marking each segmented program copy with a zone identifier (paragraph [0078] via subscribers are divided into subgroups, and different ads are targeted to each subgroup).

Claim 30: Eldering and Swix disclose all the elements of Claim 29, and Eldering further discloses wherein collecting information comprises collecting a zone identifier for the zone from which the request originates (paragraphs [0110]-[0112] and figure 6 via the purchasing characteristics database 620 may receive input from a variety of sources including, but not limited to, point of sale purchase characteristics 622, Internet purchase characteristics 624, phone

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purchase characteristics 626, and mail order purchase characteristics 628; and transaction characteristics database 630 may receive input related to a variety of transaction characteristics including but not limited to credit card transaction characteristics 632, phone transaction characteristics 634, banking transaction characteristics 636 and location transaction characteristics 638).

Claim 31: Eldering and Swix disclose all the elements of Claim 29, and Eldering further discloses wherein the segmenting is performed by identifying indicators for local advertising (paragraph [0085] and figure 5 via grouping TV subscribers into subgroups and delivering targeted ads, and the SCS 540 determines which ads (additional national ads 524, local ads 526, 535) should be substituted (targeted) for the ad (default ad) within the program stream 515 and which subscribers 580 should receive which ads).

9. Claim 15 is rejected under 35 U.S.C. 102(e) as being anticipated by Carlucci et al. (US PgPub 20040103429 A1) in view of in view of Bjorgan et al. (US PgPub 20030066078 A1), Lumley et al. (US Pat 6588013 B1) and Liga et al. (US PgPub 20030154128 A1) as applied to claim 14 supra, and further in view of Nathaniel (US PgPub 20030130887 A1).

Claim 15: Carlucci, Bjorgan, Lumley and Liga disclose all the elements of claim 14, but Carlucci only discloses in part wherein the ADS comprises a connection to an external targeting system (paragraph [0032] and figure 2 via Headend 105 receives programs and services from various providers and sources, e.g., analog and digital satellite sources, application servers,

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media servers, the Internet, etc. ... Application servers typically provide executable code and data for application specific services such as database services, network management services, transactional electronic commerce services, system administration console services, application specific services (such as stock ticker, sports ticker, weather and interactive program guide data), resource management service, connection management services, subscriber cares services, billing services, operation system services, and object management services).

Nathaniel teaches in paragraph [0023] and figure 2 that the master server system 18 includes various software components for managing content delivery including a Dynamic Campaign Manager 50, a Capacity Forecaster 52, a Delivery Manager 54, an Inventory Manager 51, system configuration information 53, and a matcher 56 ... the data on impressions and click-throughs will be estimated based on survey data (e.g. Nielsen Media Research) and zip code based census data (e.g. Claritas Prizm codes).

Therefore, from the teaching of Nathaniel it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the technique for delivering entertainment programming content including commercial content therein over a communications network of Carlucci to include the master server system estimations of impressions and click-throughs estimated based on survey data (Nielsen Media Research) and zip code based census data (e.g. Claritas Prizm codes) of Nathaniel in order to provide a method and system for scheduling delivery of targeted content to network devices in an optimal manner that is flexible and can be fine-tuned on the fly (paragraph [0006]).

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10. Claim 16 is rejected under 35 U.S.C. 102(e) as being anticipated by Carlucci et al. (US PgPub 20040103429 A1) in view of Bjorgan et al. (US PgPub 20030066078 A1), Lumley et al. (US Pat 6588013 B1), Liga et al. (US PgPub 20030154128 A1) and Nathaniel (US PgPub 20030130887 A1) as applied to claim 15 supra, and further in view of Zizzamia et al. (US PgPub 20020161609 A1).

Claim 16: Carlucci, Bjorgan, Lumley, Liga and Nathaniel disclose all the elements of claim 15, and Nathaniel discloses in part wherein the external targeting system is selected from a group comprising a PRIZM system and an AXCIOM system (Nathaniel paragraph [0023] supra).

However, none of the references disclose an external targeting system selected from a group comprising an AXCIOM system.

Zizzamia teaches in paragraph [0013] that external sources are selected from a group comprised of business level databases (e.g., Dun & Bradstreet and Experian), zip code level census data (as provided by the U.S. government or third party source), county level data such as weather, and business owner household level demographics data (e.g., **Axciom** and INFO-USA). Zizzamia then teaches in paragraph [0037] that external data sources also include business owner household level demographics from data providers such as **Axciom** or INFO-USA.

Therefore, from the teaching of Zizzamia it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the technique for delivering entertainment programming content including commercial content therein over a communications network of Carlucci to include the Axciom external source of Zizzamia in order

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to provide a quantitative system and method that employs data sources external to an insurance company to either independently or more accurately and consistently predict the future profitability of commercial insurance on a per policyholder basis (paragraph [0011]).

11. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering et al. (US PgPub 20020123928 A1) in view of Swix et al. (US Pat 6718551 B1) as applied to claim 31 above, and further in view of Liga et al. (US PgPub 20030154128 A1).

Claim 32: Eldering and Swix disclose all the elements of Claim 31, but does not disclose wherein identifying is conducted according to one or more of a set consisting of SCTE 35 cue packets, DTMF cues, contact closures triggered by an analog signal, network messages from an insertion system and network messages from a stat-mux/splicer.

Liga teaches in paragraph [0023] lines 10-13 that embedded data may be transmitted as separate data packets in the data stream comprising the video signal, or in network signals such as Society of Cable Telecommunications Engineers (SCTE) standards, such as the DVS 253 standard for cueing advertisements. Liga et al. also teaches in paragraph [0082] lines 1-7 detecting advertisements either by receiving the embedded data, or receiving a signal indicating the cessation of the program and beginning of an advertisement, where this signal may be, for example, a dual-tone frequency modulated (DTMF) signal, a DVS 253 or 380 signal, or any form of embedded command data of an analog or digital nature. Liga et al. also teaches in figure 3 and in paragraph [0042] lines 9-11 that once modulated, the digital signals are combined with standard network channel broadcasts by the multiplexor 340

Therefore, from the teaching of Liga it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of segmenting local advertising by identifying indicators of Eldering to include the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga in order to use targeted ads in conjunction with consumer profile information to reach interested consumers (Liga Abstract lines 3-4).

12. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering et al. (US PgPub 20020123928 A1) in view of Swix et al. (US Pat 6718551 B1) as applied to claim 24 above, and further in view of Bjorgan et al. (US PgPub 20030066078 A1) and Cowan et al. (US Pat 6941573 B1).

Claim 33: Eldering and Swix disclose all the elements of Claim 24, but do not disclose the invention comprising: determining if a given correctly zoned local advertisement has expired; and if the correctly zoned local advertisement has expired, generating a playlist utilizing a replacement local advertisement and the requested program.

Bjorgan teaches in paragraph [0017] the use of a cue to selectively replace a commercial within a subset of the video frames with a substitute commercial during playback. This may suitably be to replace an "expired" commercial or, alternatively, to present a "targeted" commercial, such targeting possibly based, at least in part, upon the economic characteristics of a particular geographic location, possibly identified by zip code ... [or] other measurable characteristics.

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Therefore, from the teaching of Bjorgan it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for delivering local advertising to a client in a video distribution system of Eldering to include the use of a cue to selectively replace a commercial, replace an “expired” commercial, or present a “targeted” commercial of Bjorgan in order to more accurately target secondary content toward the current needs of the specific audience viewing their primary content programming at any given time (paragraph [0010]);

Cowan teaches in col. 4 lines 35-40 that substitute advertising can then be determined by comparing consumer purchase data collected from selected stores associated with zones receiving the substitute advertising with consumer data collected from selected stores associated with zones receiving normal advertising.

Therefore, from the teaching of Cowan it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for delivering local advertising to a client in a video distribution system of Eldering to include the television distribution system for signal substitution of Cowan in order to provide a market research signal substitution system which accurately represents the demographics of the community being served and which avoids the problems, costs and user resistance of an individually addressed arrangement (Cowan col. 2 lines 12-16).

13. Claims 43-50, 52 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering et al. (US PgPub 20020123928 A1) in view of Cowan et al. (US Pat 6941573 B1) and Liga et al. (US PgPub 20030154128 A1).

Claim 43: Eldering discloses a computerized method for delivering local advertising to a client in a video distribution system, the method comprising:

electronically receiving multiple zoned copies of a given program, each zoned copy containing proper local advertising for a given zone (paragraph [0158] and Fig. 30 via groups may be formed based on the layout of a cable TV plant; a zone or super head-end 3000 receives national programming via satellite or other means from content providers and distributes national programming to a plurality of head-ends 3010; each HE 3010 serves a number of nodes 3020; each node 3020 serves a plurality of subscribers 3030 via a plurality of branches 3040 from each node 3020);

recording a zoned copy of a given program containing proper local advertising for each zone the video distribution system services (paragraph [0025] via monitoring subscriber interaction with the television and aggregating the data to form the viewing characteristics, where the subscriber interaction includes at least some subset of channel changes, volume changes, EPG activation and **record** commands); paragraph [0085] and figure 5 via an exemplary system for grouping TV subscribers into subgroups and delivering targeted ads thereto ... the national advertiser 520 delivers national ads 522 to the content providers 510 and the content providers 510 generate and deliver program streams (programming with national ads inserted therein) 515 ... the program stream is delivered to the SCS 540 [Secure Correlation System]. The SCS 540 also receives additional national ads 524 and local ads 526 from the national advertiser 520, and local ads 535 from the local advertisers 530 ... The SCS determines which ads (additional national ads 524, local ads 526, 535) should be substituted (targeted) for

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the ad (default ad) within the program stream 515 and which subscribers 580 should receive which ads; paragraph [0156] via the generalized method for obtaining information from the database is, targeting information ... **it is possible for an advertiser to determine the applicability of an ad to a subscriber** (individual/household) or group by supplying an ad characterization vector along with the ID of the subscriber or the group ... The generalized method for determining ad applicability is, ad applicability, [an equation containing an ID] ... **The ID** may be for a particular subscriber (social security #, address, phone #), for particular transactions (anonymous transaction IDs), or **groups** (**zip code, area code, town**, cable node) ... **Group IDs** may be utilized **to determine applicability of an ad to a particular group**, with the basis for the grouping being **geographic**, demographic, socioeconomic, or through another grouping mechanism [the Examiner considers the use of group IDs containing zip code, area code, town and geographic group IDs to be the zoning of advertisements of the current invention])

electronically determining, by using a programmable microprocessor, the zone in which the client requesting a program is located; and transmitting a zoned copy of the requested program to the client (paragraphs [0169]-[0171] and figures 37B, 38A-C and 39 via a node receiving multiple presentation streams at different frequencies, where the presentation streams can be transmitted using several methods and then mapped to the appropriate branch within the node; and at the frequency remapping module 3370, different digital signals are re-mapped such that multiple versions of the digital channels containing alternate programming or advertising sequences are re-mapped for transmission to the individual branch zones; and different digital presentation streams being transmitted at different wavelengths).

However, Eldering does not disclose electronically determining, by using a programmable microprocessor, whether the proper local advertising contained in the zoned copy of the requested program has expired and replacing the expired proper local advertising with a replacement advertisement; and

Liga teaches in paragraph [0023] lines 10-13 that embedded data may be transmitted as separate data packets in the data stream comprising the video signal, or in network signals such as Society of Cable Telecommunications Engineers (SCTE) standards, such as the DVS 253 standard for cueing advertisements. Liga et al. also teaches in paragraph [0082] lines 1-7 detecting advertisements either by receiving the embedded data, or receiving a signal indicating the cessation of the program and beginning of an advertisement, where this signal may be, for example, a dual-tone frequency modulated (DTMF) signal, a DVS 253 or 380 signal, or any form of embedded command data of an analog or digital nature. Liga et al. also teaches in figure 3 and in paragraph [0042] lines 9-11 that once modulated, the digital signals are combined with standard network channel broadcasts by the multiplexor 340

Therefore, from the teaching of Liga it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of segmenting local advertising by identifying indicators of Eldering to include the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga in order to use targeted ads in conjunction with consumer profile information to reach interested consumers (Liga Abstract lines 3-4).

However, Eldering and Liga do not disclose transmitting a zoned copy of the requested program to the client.

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Cowan teaches in col. 4, lines 15-49 teaches using the consumer community at large as subjects of consumer analysis when normal and substitute programs are presented on the television receiver of a community ... normal and substitute signals are distributed to separated zones of the community ... Once the stores, and their included consumer information collection systems are identified, data associating particular stores with particular zones is then recorded in the market research computer. When a test is performed in which substitute advertising is transmitted to particular zones, the consumer purchase data from the selected stores of the market study area is collected.

Therefore, from the teaching of Cowan it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of segmenting local advertising by identifying indicators of Eldering to include the transmission of a zoned copy of the requested program to the client of Cowan in order to provide a market research signal substitution system which accurately represents the demographics of the community being served and which avoids the problems, costs and user resistance of an individually addressed arrangement (Cowan col. 2, lines 12-16).

Claim 44: Eldering, Cowan and Liga disclose all the elements of Claim 43, and Liga discloses in part the invention comprising: receiving a request for a program from the client; and selecting the properly zoned copy of the requested program containing proper local advertising.

Liga teaches in Abstract a method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer. Liga then teaches in paragraph [0009] a method and system to freshen or replace stale advertising. An advertisement may be encoded or

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embedded with a hidden time or date stamp indicating when an advertisement expires. As the PVR [personal video recorder] plays back a recorded video signal, it may check the embedded information before an advertisement is actually shown. Should the embedded stamp indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Liga further teaches in paragraph [0024] the freshening or replacement of stale advertising. Each advertisement may again be encoded or embedded with hidden information. In this embodiment, the hidden information is typically a time or date stamp indicating when an advertisement expires. As the PVR plays back a recorded video signal, it may check the embedded information as each advertisement is queued for playback. Should the embedded information indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Updated advertisements may either be requested from and transmitted by a server located at a cable headend or other transmission source, or may be stored locally on the PVR itself. Liga then teaches in paragraph [0023] lines 10-13 that embedded data may be transmitted as separate data packets in the data stream comprising the video signal, or in network signals such as Society of Cable Telecommunications Engineers (SCTE) standards, such as the DVS 253 standard for cueing advertisements. Liga also teaches in paragraph [0082] lines 1-7 detecting advertisements either by receiving the embedded data, or receiving a signal indicating the cessation of the program and beginning of an advertisement, where this signal may be, for example, a dual-tone frequency modulated (DTMF) signal, a DVS 253 or 380 signal, or any form of embedded command data of an analog or digital nature. Liga then teaches in figure 3 and in paragraph [0042] lines 9-11 that once modulated, the digital signals are combined with standard network channel broadcasts by the multiplexor 340.

Therefore, from the teaching of Liga it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for delivering local advertising to a client in a video distribution system of Eldering to include the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga in order to use targeted ads in conjunction with consumer profile information to reach interested consumers (Liga Abstract lines 3-4).

Cowan teaches in col. 4 lines 35-40 that substitute advertising can then be determined by comparing consumer purchase data collected from selected stores associated with zones receiving the substitute advertising with consumer data collected from selected stores associated with zones receiving normal advertising.

Therefore, from the teaching of Cowan it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the targeting ads to subscribers of Eldering and the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga to include the television distribution system for signal substitution of Cowan in order to provide a market research signal substitution system which accurately represents the demographics of the community being served and which avoids the problems, costs and user resistance of an individually addressed arrangement (Cowan col. 2 lines 12-16).

Claim 45: Eldering discloses a computerized method for delivering local advertising to a client in a video distribution system, the method comprising:

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electronically creating a playlist with an identifier identifiers for a given program and one or more national advertisements (paragraph [0024] via a system, method and apparatus for targeting advertisements (ads) to subscribers. **The ads are targeted to subscribers by correlating subscriber profiles with ad profiles** [this correlation of subscriber profiles with ad profiles considered by the Examiner to be the construction of the “playlist” of the current invention]; paragraph [0029] via ad profiles and subscriber profiles are received by a Secure Correlation Server ... (SCS). **The SCS correlates the ad profiles with one or more subscriber profiles or one or more group of subscribers.** The correlation can be performed by applying an operator to the subscriber profiles in the form of ket vectors to determine if a particular ad is applicable to the subscriber; paragraph [0088] and figure 6 an exemplary SPS 550 [Secure Profiling System] receiving data from a variety of sources including but not limited to a viewing characteristics database 610, a purchasing characteristics database 620, a transaction characteristics database 630, a statistical information database 640, and a deterministic information database 650; paragraph [0092] and figure 7 via interaction with an electronic or interactive program guide (EPG) 718 and viewing characteristics vectors (VCPS 700) monitoring; and if the VCPS 700 was monitoring viewer interaction with a computer, interactive TV or other device connected to the Internet, the subscriber interactions may also include sites visited, click throughs, book marks and other commands applicable to Internet surfing; and paragraph [0133] and figures 5 and 6 that **the SPS 550 may gather data from [the various databases herein listed]** the viewing characteristics database 610, the purchasing characteristics database 620, the transaction characteristics database 630, the statistical information database 640, and the deterministic information database 650, **and statistically multiplex it to generate a**

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resulting profile that is used to match subscribers to ads ... the profiles are formed in advance and forwarded to the SCS 540 [Secure Correlation Server] where they are matched with ads. According to another embodiment, **the SPS 550 receives ad characteristics from advertisers via the SCS 540 and based on the available data generates associated profiles** that it forwards to the SCS 540 for matching [the Examiner considers that Secure Correlation Server (SCS 540) correlation of user profiles (databases) with ad profiles (also databases) as the “playlist” of the current invention. The Examiner considers any playlist to be just another database, which is what Eldering is implementing here)];

determining, by using a programmable microprocessor, a geographical zone in which a requesting client resides (paragraph [0116] and figures 5 and 17B via demographic segment information can be used in the exemplary TV delivery environment by combining it with the network operator's billing database as shown in Fig. 17B);

but Eldering does not disclose associating one or more local advertisements with the given program wherein the one or more local advertisements include a zone identifier proximate to the geographical zone;

Cowan teaches in col. 4, lines 15-49 use of the consumer community at large as subjects of consumer analysis when normal and substitute programs are presented on the television receiver of a community. Normal and substitute signals are distributed to separate zones of the community. Particular stores are selected to represent a particular community, stores selected to be representative of the community. The stores selected are those in which the shoppers are preponderantly from the same zone. Such a selection may be made based, for example, on the demographic data provided by a sample of the consumers themselves and/or it may be made

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based on a fixed perimeter drawn around the stores. Once the stores, and their included consumer information collection systems are identified, data associating particular stores with particular zones is then recorded in the market research computer. When a test is performed in which substitute advertising is transmitted to particular zones, the consumer purchase data from the selected stores of the market study area is collected. The significance of the substitute advertising can then be determined by comparing consumer purchase data collected from selected stores associated with zones receiving the substitute advertising with consumer data collected from selected stores associated with zones receiving normal advertising.

Therefore, from the teaching of Cowan it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the interaction with an electronic or interactive program guide and viewing characteristics vectors monitoring of Eldering to include the associating of advertising with particular zones of Cowan in order to provide a market research signal substitution system which accurately represents the demographics of the community being served (col. 2, lines 12-16).

Eldering further discloses in part determining whether the geographically zoned local advertisement has expired and replacing an expired geographically zoned local advertisement with a replacement advertisement (paragraph [0122] and figures 18-20 via based on the type of programs viewed, times watched, channel change patterns, volume levels or other subscriber activities the heuristic rules could define the probability of a subscriber eating fast food, the type of ads they are receptive to (i.e., emotional, funny, abrasive), or the probability of the subscriber paying for a particular service (i.e., car or house cleaning, oil change) as opposed to doing it themselves [the Examiner construes the term "times watched" to include time of day/night

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intervals as well as how frequently a particular program is watched in order to determine when to place a particular advertisement]; and paragraph [0184] via in addition to the ads it is likely that an ad queue defining some characteristics of when ads should displayed is also sent to the PVR and stored thereon; based on the ad queues the ads would be substituted during avails [the Examiner construes the recitation of "... an ad queue defining sum characteristics of when ads should be displayed ..." as a determination of when to place a particular ad]; paragraph [0086] and figure 5 via a secure correlation server creates presentation streams that have the same programming but include targeted advertisements in place of the default advertisement [the Examiner construes the action of the secure correlation server as the expiring of the default advertisement in favor of the selected targeted advertisement]); and

However, Eldering does not fully disclose determining whether the geographically zoned local advertisement has expired and replacing an expired geographically zoned local advertisement with a replacement advertisement;

Liga teaches in Abstract a method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer. Liga then teaches in paragraph [0009] a method and system to freshen or replace stale advertising. An advertisement may be encoded or embedded with a hidden time or date stamp indicating when an advertisement expires. As the PVR [personal video recorder] plays back a recorded video signal, it may check the embedded information before an advertisement is actually shown. Should the embedded stamp indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Liga further teaches in paragraph [0024] the freshening or replacement of stale advertising. Each advertisement may again be encoded or embedded with hidden information. In this embodiment, the hidden

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information is typically a time or date stamp indicating when an advertisement expires. As the PVR plays back a recorded video signal, it may check the embedded information as each advertisement is queued for playback. Should the embedded information indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Updated advertisements may either be requested from and transmitted by a server located at a cable headend or other transmission source, or may be stored locally on the PVR itself. Liga teaches in paragraph [0023] lines 10-13 that embedded data may be transmitted as separate data packets in the data stream comprising the video signal, or in network signals such as Society of Cable Telecommunications Engineers (SCTE) standards, such as the DVS 253 standard for cueing advertisements. Liga also teaches in paragraph [0082] lines 1-7 detecting advertisements either by receiving the embedded data, or receiving a signal indicating the cessation of the program and beginning of an advertisement, where this signal may be, for example, a dual-tone frequency modulated (DTMF) signal, a DVS 253 or 380 signal, or any form of embedded command data of an analog or digital nature. Liga also teaches in figure 3 and in paragraph [0042] lines 9-11 that once modulated, the digital signals are combined with standard network channel broadcasts by the multiplexor 340.

Therefore, from the teaching of Liga it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for delivering local advertising to a client in a video distribution system of Eldering and the associating of advertising with particular zones of Cowan to include the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga in order to

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use targeted ads in conjunction with consumer profile information to reach interested consumers (Liga Abstract lines 3-4).

Eldering then discloses electronically adding identifiers for one or more local advertisements to the playlist based on the determined zone (paragraph [0087] and figure 5 via Secure Correlation Server (SCS 540) may create subgroups based on input from the SPS 550 and then match ads to those groups, or may receive ads having specific criteria and form groups based on the specific desires of the advertisers); and

delivering the playlist to a video server (paragraph [0086] and figure 5 via the SCS 540 creates presentation streams 545 that have the same programming but targeted ads in place of the default ad; the presentation streams 545 are delivered to the network operator 560; the network operator 560 delivers the presentation streams 545 to the subscribers 580 via the access network 570).

Claim 46: Eldering, Cowan and Liga disclose all the elements of Claim 45, and Eldering further discloses the invention comprising the video server transmitting data identified in the playlist to a client for decoding and display (paragraph [0086] and figure 5 via the SCS 540 creates presentation streams 545 that have the same programming but targeted ads in place of the default ads; the presentation streams 545 are delivered to the network operator 56, and the network operator 560 delivers the presentation streams 545 to the subscribers 580 via the access network 570).

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Claim 47: Eldering, Cowan and Liga disclose all the elements of Claim 45, and Eldering further discloses comprising: calculating the zone in which a client resides; and selecting the proper local advertising for the zone in which the client resides (paragraph [0164] and figure 35 via nodes are clustered together based on a correlation and each cluster of nodes receives a different presentation stream, and each cluster would have a cluster profile computed and could receive targeted ads based on the cluster profile).

Claim 48: Eldering, Cowan and Liga disclose all the elements of Claim 45, and Eldering further discloses the invention comprising:

receiving a copy of a given program for each zone that the video distribution system services (paragraph [0166] and figure 36 via clustering nodes can be used to create targeted channel lineups (TCL) that may include in addition to different presentation streams, different data/voice signals and different video on demand (VOD) signals are transmitted to the appropriate cluster of nodes, and each cluster of nodes receives its properly allocated TCL);

segmenting the received program into program content, national advertising and local advertising (paragraph [0166] and figure 36 via an AIS 3600 creates three separate data signals, and a VOD server creates three separate VOD signals); and

discarding all but one copy of zoned programming with program content and national advertising (paragraph [0166] and figure 36 via nodes N1, N3, N6 and N7 receive TCL-A, nodes N2 and N5 receive TCL-B, and nodes N4 and N8 receive TCL-C).

Claim 49: Eldering discloses a computerized method for delivering local advertising to a client in a video distribution system, the method comprising:

electronically receiving a copy of a given program for each zone that the video distribution system services (paragraphs [0024], [0029], [0133] and figures 5 and 6 as in claim 45 supra; and paragraph [0166] and figure 36 via clustering nodes can be used to create targeted channel lineups (TCL) that may include in addition to different presentation streams, different data/voice signals and different video on demand (VOD) signals are transmitted to the appropriate cluster of nodes, and each cluster of nodes receives its properly allocated TCL);

segmenting the program into program content, national advertising and local advertising; retaining the program content and discarding the national and local advertising (paragraph [0085] and figure 5 via the national advertiser 520 delivers national ads 522 to the content provider 510 to generate and deliver program streams; the program stream is delivered to the SCS 540, which also receives additional national ads 524 and local ads 520; the SCS 540 also receives subscriber profiles 555 from the SPS 550; the SCS 540 determines which ads, both additional national ads 524 and local ads 526 and 535 should be substituted for the default ad within the program stream 515);

but Eldering only discloses in part receiving a request for the program from a client in a given geographical zone;

Cowan teaches in col. 5, lines 39-55 and figure 1 a general block diagram showing a targeted television system in accordance with the present invention for delivering cable television signals to a viewer community represented by irregular area 101. Each zone, however, includes a number of geographically proximate subscribers and is referred to herein as being

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substantially contiguous. Further, it is possible that over time the zone boundaries will change as new subscribers request cable service and other subscribers give up their prior service.

Therefore, from the teaching of Cowan it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the delivery and segmentation of programming of Eldering to include the geographical zones and requests of Cowan in order to provide a market research signal substitution system which accurately represents the demographics of the community being served (Cowan col. 2, lines 12-16).

but Eldering does not disclose associating one or more local advertisements with the request for the program wherein the one or more local advertisements include a zone identifier proximate to the given geographical zone;

Cowan teaches in col. 4, lines 15-49 use of the consumer community at large as subjects of consumer analysis when normal and substitute programs are presented on the television receiver of a community. Normal and substitute signals are distributed to separate zones of the community. Particular stores are selected to represent a particular community, stores selected to be representative of the community. The stores selected are those in which the shoppers are preponderantly from the same zone. Such a selection may be made based, for example, on the demographic data provided by a sample of the consumers themselves and/or it may be made based on a fixed perimeter drawn around the stores. Once the stores, and their included consumer information collection systems are identified, data associating particular stores with particular zones is then recorded in the market research computer. When a test is performed in which substitute advertising is transmitted to particular zones, the consumer purchase data from the selected stores of the market study area is collected. The significance of the substitute advertising

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can then be determined by comparing consumer purchase data collected from selected stores associated with zones receiving the substitute advertising with consumer data collected from selected stores associated with zones receiving normal advertising.

Therefore, from the teaching of Cowan it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the delivery and segmentation of programming of Eldering to include the associating of advertising with particular zones of Cowan in order to provide a market research signal substitution system which accurately represents the demographics of the community being served (col. 2, lines 12-16).

Eldering further discloses in part determining whether the geographically zoned local advertisement has expired and replacing an expired geographically zoned local advertisement with a replacement advertisement (paragraph [0122] and figures 18-20 via based on the type of programs viewed, times watched, channel change patterns, volume levels or other subscriber activities the heuristic rules could define the probability of a subscriber eating fast food, the type of ads they are receptive to (i.e., emotional, funny, abrasive), or the probability of the subscriber paying for a particular service (i.e., car or house cleaning, oil change) as opposed to doing it themselves [the Examiner construes the term "times watched" to include time of day/night intervals as well as how frequently a particular program is watched in order to determine when to place a particular advertisement]; and paragraph [0184] via in addition to the ads it is likely that an ad queue defining some characteristics of when ads should displayed is also sent to the PVR and stored thereon; based on the ad queues the ads would be substituted during avails [the Examiner construes the recitation of "... an ad queue defining sum characteristics of when ads should be displayed ..." as a determination of when to place a particular ad]; paragraph [0086]

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and figure 5 via a secure correlation server creates presentation streams that have the same programming but include targeted advertisements in place of the default advertisement [the Examiner construes the action of the secure correlation server as the expiring of the default advertisement in favor of the selected targeted advertisement]); and

However, Eldering does not fully disclose determining whether the geographically zoned local advertisement has expired and replacing an expired geographically zoned local advertisement with a replacement advertisement

Liga teaches in Abstract a method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer. Liga then teaches in paragraph [0009] a method and system to freshen or replace stale advertising. An advertisement may be encoded or embedded with a hidden time or date stamp indicating when an advertisement expires. As the PVR [personal video recorder] plays back a recorded video signal, it may check the embedded information before an advertisement is actually shown. Should the embedded stamp indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Liga further teaches in paragraph [0024] the freshening or replacement of stale advertising. Each advertisement may again be encoded or embedded with hidden information. In this embodiment, the hidden information is typically a time or date stamp indicating when an advertisement expires. As the PVR plays back a recorded video signal, it may check the embedded information as each advertisement is queued for playback. Should the embedded information indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Updated advertisements may either be requested from and transmitted by a server located at a cable headend or other transmission source, or may be stored locally on the PVR itself. Liga teaches in

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paragraph [0023] lines 10-13 that embedded data may be transmitted as separate data packets in the data stream comprising the video signal, or in network signals such as Society of Cable Telecommunications Engineers (SCTE) standards, such as the DVS 253 standard for cueing advertisements. Liga also teaches in paragraph [0082] lines 1-7 detecting advertisements either by receiving the embedded data, or receiving a signal indicating the cessation of the program and beginning of an advertisement, where this signal may be, for example, a dual-tone frequency modulated (DTMF) signal, a DVS 253 or 380 signal, or any form of embedded command data of an analog or digital nature. Liga also teaches in figure 3 and in paragraph [0042] lines 9-11 that once modulated, the digital signals are combined with standard network channel broadcasts by the multiplexor 340.

Therefore, from the teaching of Liga it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for delivering local advertising to a client in a video distribution system of Eldering and the associating of advertising with particular zones of Cowan to include the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga in order to use targeted ads in conjunction with consumer profile information to reach interested consumers (Liga Abstract lines 3-4).

Eldering further discloses electronically creating a playlist identifying the programming content (paragraph [0166] and figure 36 via clustering nodes in order to create targeted channel lineups (TCL), and the appropriate sets of signals are then combined together (i.e., ESPN-A, DATA-A and VOD-A) to form TCLs);

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calculating, by using a programmable microprocessor, the a program advertising zone in which the requesting client resides (paragraph [0164] and figure 35 via nodes are clustered together based on a correlation and each cluster of nodes receives a different presentation stream, and each cluster would have a cluster profile computed and could receive targeted ads based on the cluster profile);

adding identifiers for advertising to the playlist based on the zone in which the client resides (abstract via correlating ad profiles to subscriber/subscriber group profiles and selecting targeted advertisements for the subscribers/subscriber groups based on the correlation); and

delivering the playlist to a video server (paragraph [0086] and figure 5 via the SCS 540 creates presentation streams 545 that have the same programming but targeted ads in place of the default ad; the presentation streams 545 are delivered to the network operator 560; the network operator 560 delivers the presentation streams 545 to the subscribers 580 via the access network 570).

Claim 50: Eldering discloses a computerized method for delivering local advertising to a client in a video distribution system, the method comprising:

receiving a playlist identifying programming and advertising information (paragraphs [0024], [0029], [0133] and figures 5 and 6 as in claim 45 supra; and paragraph [0092] and figure 7 via in generating one or more viewing characteristic vectors, the VCPS 700 receives input from the subscriber 710 in the form of commands from a subscriber interface device, such as a remote control);

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transmitting video data identified in the playlist to a client operative to decode and display the video data (paragraph [0073] and figure 1 via the network operator 140 transmits the program stream (with approximately 20% of the national ads 125 replaced with local ads 128, 135) 145 to the subscribers 160 via the access network 150; the access network 150 may be a cable TV (CTV) network, a Switched Digital Video (SDV) network or other networks now known or later discovered and may have a hybrid fiber-coax (BFC) architecture, a satellite-based architecture, an Internet-based architecture, digital subscriber line (xDSL) architecture, fiber to the curb (FTTC) or fiber to the home (FTTH), or other architectures now known or later discovered);

electronically receiving a control command from the client (paragraph [0092] and figure 7 via the VCPS 700 receives input from the subscriber 710 in the form of commands from a subscriber interface device, such as a remote control);

but Eldering does not disclose associating one or more local advertisements with the control command from the client wherein the one or more local advertisements include a zone identifier proximate to where the client is located;

Cowan teaches in col. 4, lines 15-49 use of the consumer community at large as subjects of consumer analysis when normal and substitute programs are presented on the television receiver of a community. Normal and substitute signals are distributed to separate zones of the community. Particular stores are selected to represent a particular community, stores selected to be representative of the community. The stores selected are those in which the shoppers are preponderantly from the same zone. Such a selection may be made based, for example, on the demographic data provided by a sample of the consumers themselves and/or it may be made

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based on a fixed perimeter drawn around the stores. Once the stores, and their included consumer information collection systems are identified, data associating particular stores with particular zones is then recorded in the market research computer. When a test is performed in which substitute advertising is transmitted to particular zones, the consumer purchase data from the selected stores of the market study area is collected. The significance of the substitute advertising can then be determined by comparing consumer purchase data collected from selected stores associated with zones receiving the substitute advertising with consumer data collected from selected stores associated with zones receiving normal advertising.

Therefore, from the teaching of Cowan it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the delivery and segmentation of programming of Eldering to include the associating of advertising with particular zones of Cowan in order to provide a market research signal substitution system which accurately represents the demographics of the community being served (col. 2, lines 12-16).

Eldering further discloses in part determining whether the geographically zoned local advertisement has expired and replacing an expired geographically zoned local advertisement with a replacement advertisement (paragraph [0122] and figures 18-20 via based on the type of programs viewed, times watched, channel change patterns, volume levels or other subscriber activities the heuristic rules could define the probability of a subscriber eating fast food, the type of ads they are receptive to (i.e., emotional, funny, abrasive), or the probability of the subscriber paying for a particular service (i.e., car or house cleaning, oil change) as opposed to doing it themselves [the Examiner construes the term "times watched" to include time of day/night intervals as well as how frequently a particular program is watched in order to determine when to

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place a particular advertisement]; and paragraph [0184] via in addition to the ads it is likely that an ad queue defining some characteristics of when ads should displayed is also sent to the PVR and stored thereon; based on the ad queues the ads would be substituted during avails [the Examiner construes the recitation of "... an ad queue defining sum characteristics of when ads should be displayed ..." as a determination of when to place a particular ad]; paragraph [0086] and figure 5 via a secure correlation server creates presentation streams that have the same programming but include targeted advertisements in place of the default advertisement [the Examiner construes the action of the secure correlation server as the expiring of the default advertisement in favor of the selected targeted advertisement]); and

However, Eldering does not fully disclose determining whether the geographically zoned local advertisement has expired and replacing an expired geographically zoned local advertisement with a replacement advertisement

Liga teaches in Abstract a method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer. Liga then teaches in paragraph [0009] a method and system to freshen or replace stale advertising. An advertisement may be encoded or embedded with a hidden time or date stamp indicating when an advertisement expires. As the PVR [personal video recorder] plays back a recorded video signal, it may check the embedded information before an advertisement is actually shown. Should the embedded stamp indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Liga further teaches in paragraph [0024] the freshening or replacement of stale advertising. Each advertisement may again be encoded or embedded with hidden information. In this embodiment, the hidden information is typically a time or date stamp indicating when an advertisement expires. As the

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PVR plays back a recorded video signal, it may check the embedded information as each advertisement is queued for playback. Should the embedded information indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Updated advertisements may either be requested from and transmitted by a server located at a cable headend or other transmission source, or may be stored locally on the PVR itself. Liga teaches in paragraph [0023] lines 10-13 that embedded data may be transmitted as separate data packets in the data stream comprising the video signal, or in network signals such as Society of Cable Telecommunications Engineers (SCTE) standards, such as the DVS 253 standard for cueing advertisements. Liga also teaches in paragraph [0082] lines 1-7 detecting advertisements either by receiving the embedded data, or receiving a signal indicating the cessation of the program and beginning of an advertisement, where this signal may be, for example, a dual-tone frequency modulated (DTMF) signal, a DVS 253 or 380 signal, or any form of embedded command data of an analog or digital nature. Liga also teaches in figure 3 and in paragraph [0042] lines 9-11 that once modulated, the digital signals are combined with standard network channel broadcasts by the multiplexor 340.

Therefore, from the teaching of Liga it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for delivering local advertising to a client in a video distribution system of Eldering and the associating of advertising with particular zones of Cowan to include the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga in order to use targeted ads in conjunction with consumer profile information to reach interested consumers (Liga Abstract lines 3-4).

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Eldering further discloses modifying, by using a programmable microprocessor, the playlist in accordance with the control command, wherein the advertising information identified in the playlist is updated (paragraph [0030] via targeted ads can be inserted into program streams using an Ad Insertion System (AIS); the AIS creates at least one presentation stream that is a program stream with an inserted targeted advertisement; a single presentation stream may be sent to the appropriate subscribers or multiple presentation streams may be sent and the appropriate presentation stream is selected by the node, the branch or the subscriber via a STB or PVR); and

electronically transmitting video data identified in the modified playlist to the client (paragraph [0073] and figure 1 via the network operator 140 transmits the program stream (with approximately 20% of the national ads 125 replaced with local ads 128, 135) 145 to the subscribers 160 via the access network 150; the access network 150 may be a cable TV (CTV) network, a Switched Digital Video (SDV) network or other networks now known or later discovered and may have a hybrid fiber-coax (BFC) architecture, a satellite-based architecture, an Internet-based architecture, digital subscriber line (xDSL) architecture, fiber to the curb (FTTC) or fiber to the home (FTTH), or other architectures now known or later discovered).

Claims 52 and 53: Eldering, Cowan and Liga disclose all the elements of Claim 50, and Eldering further discloses the invention further comprising updating local and national advertising information (paragraph [0085] and figure 5 via the Secure Correlation Server (SCS) determines which ads (additional national ads 524, local ads 526, 535) should be substituted (targeted) for the ad (default ad) within the program stream 515 and which subscribers 580 should receive which ads).

Response to Arguments

14. Applicant's arguments filed October 07, 2010 have been fully considered but they are not persuasive.

a. The Applicant then argues regarding claim 43 that "... Eldering fails to teach or suggest the receiving and recording zoned copy of a given program containing proper local advertising for each zone the video distribution services ... [and] geographically zoned local advertisements." (Bjorgan par. [0017])

The Examiner respectfully disagrees. Page 25, lines 16-19 of the current specification recites "Because local advertisers purchase avail opportunities for only one or more local advertisement zones, a method is needed to ensure that the NDVR control center delivers programming with the **proper local advertising** to a client in a given zone. **Fig. 5 illustrates one such embodiment** of a method for delivering programming with local advertising." Steps 522 and 524 of figure 5 show the Advertising Management System (ADS) generating a playlist containing **original ads for the zone in which the client resides**, and generating a playlist containing replacement ads for a given client. In step 514, the video server delivers the program and zoned advertising to the client. The Examiner considers the "proper local advertising" as argued by the Applicant supra to be the original ads for the zone in which the client resides. Further, the Examiner considers "the zone in which the client resides" as recited in the specification supra to be any indication of a client residence, such as zipcode, physical address, city, state, street, etc.

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Eldering teaches in paragraph [0085] and figure 5 an exemplary system for grouping TV subscribers into subgroups and delivering targeted ads thereto ... the national advertiser 520 delivers national ads 522 to the content providers 510 and the content providers 510 generate and deliver program streams (programming with national ads inserted therein) 515 ... the program stream is delivered to the SCS 540 [Secure Correlation System]. The SCS 540 also receives additional national ads 524 and local ads 526 from the national advertiser 520, and local ads 535 from the local advertisers 530 ... The SCS determines which ads (additional national ads 524, local ads 526, 535) should be substituted (targeted) for the ad (default ad) within the program stream 515 and which subscribers 580 should receive which ads. Eldering further teaches in paragraph [0156] that the generalized method for obtaining information from the database is, targeting information ... **it is possible for an advertiser to determine the applicability of an ad to a subscriber** (individual/household) or group by supplying an ad characterization vector along with the ID of the subscriber or the group ... The generalized method for determining ad applicability is, ad applicability, [an equation containing an ID] ... **The ID** may be for a particular subscriber (social security #, address, phone #), for particular transactions (anonymous transaction IDs), or **groups** (**zip code, area code, town**, cable node) ... **Group IDs** may be utilized **to determine applicability of an ad to a particular group**, with the basis for the grouping being **geographic**, demographic, socioeconomic, or through another grouping mechanism. The Examiner considers the use of group IDs containing zip code, area code, town and geographic group IDs to be the zoning of advertisements of the current invention.

b. The Applicant further argues regarding claims 45, 49 and 50 that Eldering "... **fails to teach or suggest the claimed 'playlist' to identify content, which includes 'a user**

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requested program stored in the time shifted architecture [considered by the Examiner to be a television program stored in a digital video recorder (DVR)] **and the one or more selected advertisements** [also considered by the Examiner to be stored in the DVR]' [wherein the Applicant recites paragraph [0059] of the specification **defining a playlist as** 'a listing of content that the NDVR control center uses to control the specific video that it delivers to clients in response to control commands that the client generates' ..."]

The Examiner respectfully disagrees.

Eldering teaches in paragraph [0024] a system, method and apparatus for targeting advertisements (ads) to subscribers. **The ads are targeted to subscribers by correlating subscriber profiles with ad profiles** [this correlation of subscriber profiles with ad profiles considered by the Examiner to be the construction of the "playlist" of the current invention]. Eldering then teaches in paragraph [0029] that ad profiles and subscriber profiles are received by a Secure Correlation Server ... (SCS). **The SCS correlates the ad profiles with one or more subscriber profiles or one or more group of subscribers.** The correlation can be performed by applying an operator to the subscriber profiles in the form of ket vectors to determine if a particular ad is applicable to the subscriber. Eldering most importantly teaches in paragraph [0088] and figure 6 an exemplary SPS 550 [Secure Profiling System] receiving data from a variety of sources including but not limited to a viewing characteristics database 610, a purchasing characteristics database 620, a transaction characteristics database 630, a statistical information database 640, and a deterministic information database 650. Eldering then teaches in paragraph [0133] and figures 5 and 6 that **the SPS 550 may gather data from [the various databases herein listed]** the viewing characteristics database 610, the purchasing characteristics

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database 620, the transaction characteristics database 630, the statistical information database 640, and the deterministic information database 650, **and statistically multiplex it to generate a resulting profile that is used to match subscribers to ads ... the profiles are formed in advance and forwarded to the SCS 540 [Secure Correlation Server] where they are matched with ads.** According to another embodiment, **the SPS 550 receives ad characteristics from advertisers via the SCS 540 and based on the available data generates associated profiles** that it forwards to the SCS 540 for matching. From this, the Examiner considers that Secure Correlation Server (SCS 540) correlation of user profiles (databases) with ad profiles (also databases) as the “playlist” of the current invention. The Examiner considers any playlist to be just another database, which is what Eldering is implementing here.

c. Applicant arguments regarding Hooks have been considered, but are moot in view of the new grounds of rejection.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are:

- a. Eldering et al. (US PgPub 20020072966 A1) teaches a system for providing targeted advertisements using advertiser-specific target groups.
- b. Eldering et al. (US PgPub 20020144263 A1) teaches grouping of advertisements on an advertising channel in a targeted advertisement system.
- c. Sefanik et al. (US PgPub 20050251820 A1) teaches a method and system for providing targeted advertisements.

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d. Wendling (US PgPub 20040268387 A1) teaches a field of program delivery.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADAM CHORNESKY whose telephone number is (571)270-5103. The examiner can normally be reached on Monday - Thursday 7:30 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss can be reached on (571) 272-6812. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/A. C./
Examiner, Art Unit 3688
December 17, 2010

/JOHN G. WEISS/
Supervisory Patent Examiner, Art Unit
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